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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Nobuyoshi YAGI et al.

Appn. No.: 09/769,376 Group Art Unit: 1774

Filed: January 26, 2001 Examiner: Kimberly T. Nguyen

For: RESIN SUBSTRATE FOR OPTICAL USE

DECLARATION UNDER 37 C.F.R. § 1.132

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Nobuyoshi YAGI, do hereby declare and state as follows:

I am a graduate of Meiji University, School of Engineering, Course of Precision Engineering in March of 1987, receiving a Bachelor's Degree from said University.

I was employed by Nitto Denko Corporation in April of 1987 and have been in the employ of said company ever since.

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I was engaged in facility design, development on the appliance and research and development on the cleanup technique at the Laboratories of said Company from 1987 to 1996 and then I was engaged in research and development on the plastic substrate for liquid crystal device from 1996 to date.

I am a coinventor of the invention described and claimed in the above-identified application serial No. 09/769,376.

I am familiar with the Office Action dated April 11, 2002 in the above-identified application and the references cited therein.

The following experimentation was carried out by me or under my direct supervision and control.

In order to demonstrate superiority of the present invention over the prior art I have conducted the following experimentation.

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EXPERIMENTATION

The surface roughness Ra of each of the front and back sides of each of a triacetyl cellulose film (FT-UV-80 (trade name) manufactured by Fuji Photo Film Co., Ltd.) and a matte polyethylene terephthalate film having a fine uneven surface (Lumirror X-45 (trade name) manufactured by Toray Industries, Inc.) was measured with respect to 10 points in an inner 420 mm-square area thereof in the same manner as in Example 1 of the present application, in accordance with JIS-B0601-1994.

Measurement Conditions:

Measurement length: 1,000 (μm)

Measurement speed: 20 ($\mu\text{m}/\text{min}$)

Stylus pressure: 10 (mg)

Longer wavelength cut-off: 80 (μm)

Shorter wavelength cut-off: 2.5 (μm)

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The thus obtained results are shown in graphs as attached hereto and described in the following table.

TABLE

		Surface roughness (Ra) (nm)			Average (nm)
FT-UV-80	Front surface	3.88	4.14	3.05	3.69
	Back surface	3.52	2.69	2.91	3.04
Lumirror X-45	Front surface	117.66	110.17	121.60	116.48
	Back surface	112.51	83.24	131.78	109.18

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I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

2002 / 7 / 11
Date: 2002 / 6 / 11

Nobuyoshi Yagi
Nobuyoshi YAGI

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FIG. 1 Front Surface of
FT-UV-80

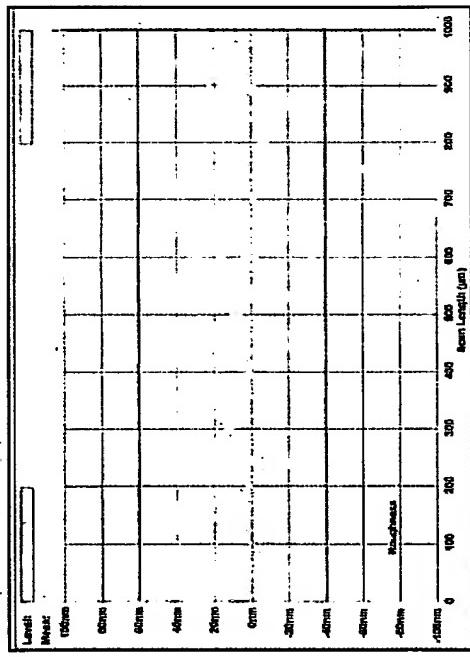


FIG. 2 Back Surface of
FT-UV-80

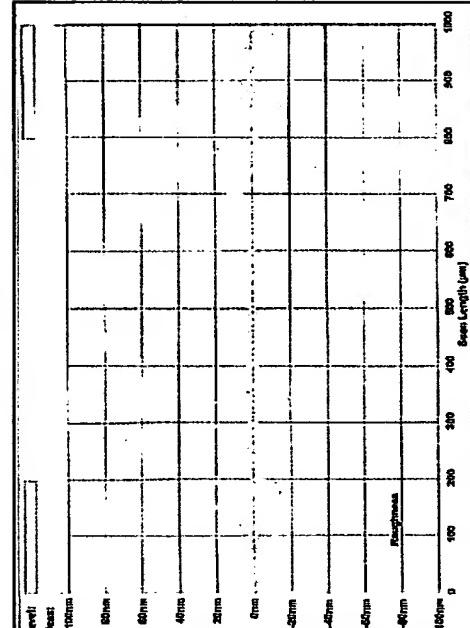


FIG. 3 Front Surface of
Lumimirror X-45

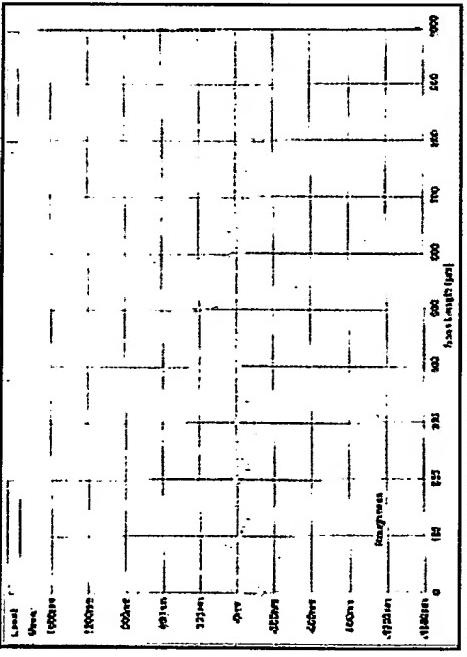


FIG. 4 Back Surface of
Lumimirror X-45

